

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF TEXAS  
DALLAS DIVISION

SOUTHWESTERN BELL TELEPHONE,	§	
L.P., <i>et al.</i> ,	§	
Plaintiffs,	§	
	§	
v.	§	CIVIL ACTION NO. 3: 04-CV-0669-B
	§	ECF
ARTHUR COLLINS, INC.,	§	
	§	
Defendant.	§	

**MEMORANDUM ORDER**

Before the Court is Defendants Southwestern Bell Telephone, L.P.'s ("Southwestern Bell") and Fujitsu Network Communications, Inc.'s ("Fujitsu") Joint Motion for Partial Summary Judgment of Invalidity of Arthur A. Collins, Inc.'s U.S. Patents Nos. 4,701,907 and 4,797, 589 (doc. 435), filed May 11, 2006. Because Collins improperly added claims 4-14 to the '589 patent, the Court GRANTS summary judgment in favor of Plaintiffs as to those claims. Because the Court has already dismissed all claims related to the '907 patent and because there exist genuine issues of material fact as to all other grounds for summary judgment, the Court DENIES the remainder of the motion.

**I. BACKGROUND**

This declaratory judgement action concerns two patents Collins holds for a dynamically reconfigurable time space time switch ("DRTST"): 4,701,907 ("the '907 patent") and 4,797,589 ("the '589 patent"). According to Southwestern Bell, Collins has asserted that switching systems in Southwestern Bell's central offices infringe the patents-in-suit and has threatened suit for infringement unless the company purchases a license from Collins. (Am. Compl. ¶¶ 10-11)

Southwestern Bell originally filed suit on March 31, 2004, seeking a declaratory judgment of non-infringement and invalidity of the patents-in-suit. (doc. 1) In its answer, Collins included a counterclaim of infringement against Southwestern Bell and requested compensatory damages, treble damages, and an injunction. (Ans. & Countercl. ¶¶ 7-11) In November 2004, Fujitsu moved to intervene in this suit based upon allegations of infringement made by Collins outside the context of the instant suit as well as potential indemnity obligations to Southwestern Bell. (Mot. to Intervene at 3) The Court granted Fujitsu leave to intervene in January 2005. (doc. 50)

After holding a *Markman* hearing, the Court issued its Memorandum Opinion and Order on Claim Construction in which it construed six terms integral to the determination of this case and the instant motion. (doc. 270) The claims were construed as follows:

- (1) “connected and connectable” – These terms mean “directly joined to one another within the same unitary piece of equipment without any intervening equipment.”
- (2) “unified structure” – Although not a claim term, the Court defines the term “unified structure” to mean “a consolidated structure with all components directly connected to one another.”
- (3) “bypass” – “Bypass” means “a structure and path by which data channels completely go around and in no respect go through the TST switch.”
- (4) “control store” – “A ‘control store’ is included within a single unified DRTST switching unit that includes a memory, processor, and operating software that determines (1) which data circulating on the network loop is to be selected and diverted to the TST switch of a given switching node; (2) how that data passes through the TST switch; (3) which data is output from the TST switch back onto the network loop; and (4) which data is to bypass the TST switch of that node.”
- (5) “means for measuring” – The Court finds that this term is not capable of construction.
- (6) “direction of the timing adjustment interval” – This term means “[t]he timing

adjustment control command signal is fed in a reverse direction from the data signal; that is, from a downstream digital switching unit to an upstream digital switching unit, in a direction opposite the data flow.”

(Mem. Op. and Order on Claim Constr. at 30-31)

On May 11, 2006, Plaintiffs moved for summary judgment of invalidity of Collins’s ‘907 and ‘589 patents. (doc. 435) Southwestern Bell and Fujitsu argue that the patents are invalid on three grounds. First, they assert that the ‘907 patent is invalid for indefiniteness because during the claim construction phase of this litigation, the Court determined that its “means for measuring . . .” claim was incapable of being construed. (Mem. in Supp. of Joint Mot. for Partial Summ. J. of Invalidity (“Pls.’ Mem.”) at 1) Second, Plaintiffs contend that the patents are invalid for lack of novelty and for obviousness in light of prior art that they claim was not considered by the United States Patent and Trademark Office (“PTO”) during examination or reexamination of the patent applications. (*Id.*) Finally, Plaintiffs maintain that all claims added by Collins during reexamination are invalid because the patents were amended for a statutorily improper purpose. (*Id.*) The parties have briefed the issues, and the Court now turns to the merits of its decision.

## II. LEGAL STANDARD

### A. Summary Judgment

A court may grant summary judgment when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law. FED. R. CIV. P. 56(c); *Petrolite Corp. v. Baker Hughes Inc.*, 96 F.3d 1423, 1425 (Fed. Cir. 1996). The burden lies with the movant to show that no genuine issue of material fact exists. *Conroy v. Reebok Int’l, Ltd.*, 14 F.3d 1570, 1575 (Fed. Cir. 1994). If the evidence submitted would allow a reasonable jury to return a verdict for the non-movant, a genuine issue remains and the court cannot grant summary judgment. *Anderson v. Liberty*

*Lobby, Inc.*, 477 U.S. 242, 248 (1986). Alternatively, a movant may meet its burden by showing that its opponent failed to present sufficient evidence to establish an essential element of the case where the opponent bears the burden of proof for that element. *Celotex Corp. v. Catrett*, 477 U.S. 317, 322-23 (1986).

**B. Invalidity**

Under 35 U.S.C. § 282, courts must begin to evaluate a patent's validity by presuming that the patent is valid. In order, to overcome this presumption, the party challenging the patent's validity must prove invalidity by clear and convincing evidence. *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1360 (Fed. Cir. 1984). A district court must give deference to the Patent and Trademark Office's decision to issue a patent where evidence already presented to the patent office is concerned. *Id.* However, no deference is due the PTO as to evidence it did not consider. *Id.* The Court now turns to the parties' arguments.

**III. ANALYSIS**

**A. The '907 Patent**

Southwestern Bell and Fujitsu insist that the '907 patent is invalid because its claims fail to meet the definiteness requirement of 35 U.S.C. § 112, ¶2. (Pls.' Mem. at 3-4) They explain that the Court's determination that the phrase "means for measuring", which appears in both independent claims of the '907 patent, is "not capable of construction" renders the patent invalid. (*Id.*) Collins does not contest this claim of invalidity. (Collins's Br. in Supp. of Resp. ("Collins's Resp.") at 3 n.3) Because the Court has now dismissed Collins's claims of infringement of the '907 patent (doc. 468), the Court DENIES the Plaintiffs' motion as to those claims.

## B. Anticipation of the ‘589 Patent

Southwestern Bell and Fujitsu also argue that the ‘589 patent is invalid because it was anticipated by *Telecommunications: A Time for Innovation* (“*Innovation*”), a book co-authored by Arthur Collins and Dr. Robert Pedersen in 1973. (Pls.’ Mem. at 7, 15) A court must find a claim invalid for anticipation when a single prior art reference exhibits every limitation of the claimed invention, either explicitly or inherently. *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997). “There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention.” *Scripps Clinic & Research Found. v. Genentech, Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991). A claim limitation is inherently present in a prior art reference when that prior art “necessarily functions in accordance with, or includes, the claimed limitation[.]” even if it does not expressly disclose that limitation. *Atlas Powder Co. v. IRECO Inc.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999). In the instant case, genuine issues of material fact as to at least two claim limitations prevent the court from rendering summary judgment as to invalidity for anticipation.

### 1. Selectively Passing/Reduced Frame Size Claim Limitation

The first claim limitation at issue occurs in claims 1 and 4 of the ‘589 patent and reads:

said inlet line terminating units selectively passing ones of said channels<sup>1</sup> to said TST switch and the remaining ones of said channels of said frame to said outlet line terminating units thereby selectively reducing the frame size of said transmission media transmitted to said TST switch, said outlet line terminating units restoring said reduced frame size to its original size.

(Appx. to Pls.’ Mem. at A53) Plaintiffs insist that *Innovation* discloses this claim limitation, citing

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<sup>1</sup>In a time-divided transmission link, time is divided into intervals called channels, and c channels form a frame. Appx. to Pls.’ Mem. at A66)

two particularly descriptive paragraphs:

The pair of inlet and outlet line terminating units associated with a loop-connected switch port are provided with a normally closed bypass gate that permits signals to flow directly from the inlet side to the outlet side of the line terminating unit without traversing the switch itself. Thus signals are free to circulate around the loop past all idle switch ports. A connection is made between two ports when their bypass gates are opened. This gate action separates the loop into two paths to form a bidirectional, full-duplex connection between two nodes.

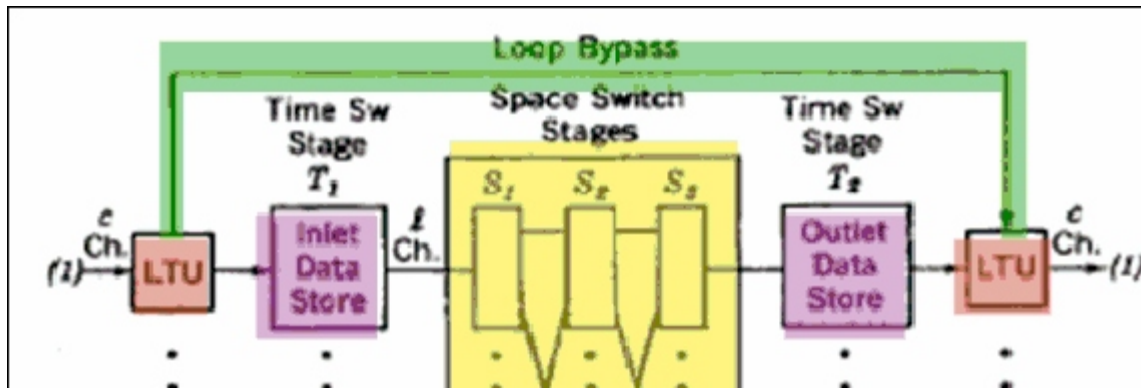
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The *inlet and outlet line terminating units* provide multiplex, timing, and control interfaces between the connected links and the inlet and outlet data stores. These units also allow bypassing the switch through the loop bypass. The loop bypass allows data circulating on a loop to completely bypass a switching node for which the data is not intended. Data that is intended for the node is routed through the switch. The data taken off the loop by the inlet line terminating unit is replaced with the corresponding output data from the outlet data store in the same time slot.

(*Id.* at A73, A80) Plaintiffs and their expert, Dr. Birch, maintain that the described process by which data is selected to follow either the bypass or a path through the core of the TST switch causes some channels to be sent through the bypass, resulting in a frame with a reduced number of channels traveling through the internal TST switch and thus, a reduced frame size. (Pls.' Mem. at 18) Collins and its expert, Dr. Grover, counter that *Innovation* does not teach a reduced frame size, but rather teaches "always transmitting the **same** number of channels in each 125 microsecond frame time to the TST switch, with certain channels simply not carrying any traffic." (Collins's Resp. at 7) Nowhere in the excerpts of *Innovation* provided by the parties do Mr. Collins and Dr. Petersen describe the effect on the channels and the frame size of routing some data through the loop bypass. All the Court is left with is conflicting expert reports: one stating that routing some channels through the loop bypass leaves fewer channels per frame to pass through the internal TST switch and the other stating that some data is removed from certain channels to travel the bypass and that all channels, some not carrying any data, travel through the TST switch so that the frame size remains

constant.

Plaintiffs also direct the Court's attention to Figure 3.1 of *Innovation*, excerpted below, as



proof that *Innovation* discloses the reduced frame size claimed in the '589 patent. (Pls.' Reply at 6; App. to Pls.' Mem. at A78) Plaintiffs reason that Figure 3.1 shows a reduced frame size because "c" channels enter the inlet line terminating unit ("LTU"), but after some channels are diverted through the bypass, only "l" channels are passed through the internal TST switch. (Pls.' Reply at 6) Collins disputes Plaintiffs' interpretation of "l" in Figure 3.1 and argues that the values for "l" in Table 3.1 of *Innovation* do not comport with "l" representing a reduced frame size. (Collins's Sur-Reply at 2-3; Appx. to Collins's Resp. at A164-A165) In the table, "l" is always larger than "c", which appears inconsistent with "l" representing a reduced frame size for frames traveling across the internal TST. (Appx. to Collins's Resp. at A164-A165) The Court cannot decide the issue of invalidity with respect to this claim limitation because genuine issues of material fact exist as to *Innovation*'s teaching of the meaning of "l" and the relative number of channels passing through the internal TST.

2. **Random Reading by Input Memory and Random Writing by Output Memory Claim Limitation**

A genuine issue of material fact also exists as to whether *Innovation* teaches inlet and outlet ports that randomly receive channels from and transmit channels to the line terminating units. The relevant claim limitation appears in claims 1 and 4 of the '589 patent and reads:

said inlet ports of said TST switch being connected to randomly receive channels from said inlet line terminating units, said outlet ports of said TST switch being connected to randomly transmit channels from said outlet ports to said outlet line terminating units for transferring data from said TST switch to said transmission media, ones of said inlet ports and outlet ports receiving frames of variable sizes determined by said control store.<sup>2</sup>

(Appx. to Pls.' Mem. at A53) Plaintiffs contend that all limitations of this claim are contained in *Innovation*, particularly in Figure 3.1. (Pls.' Mem. at 19-20) Further, Plaintiffs, supported by their expert, Dr. Birch, argue that the function of randomly receiving and randomly transmitting channels is inherently present in the disclosures of *Innovation* because a person of ordinary skill in the art would have understood that type of memory accessing and control scheme to be necessarily present in the TST switches described in *Innovation*. (*Id.* at 20) Collins, supported by its expert Dr. Grover, counters that *Innovation* "teaches a completely different concept in which data is read *sequentially* into the input memories and removed *sequentially* from the output memories." (Collins's Resp. at 10)

Nowhere in the excerpts of *Innovation* provided by the parties does there appear a description

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<sup>2</sup>The language above is taken from claim 1. The language of claim 4 is identical except for the replacement of the term "connected" with "operatively connected" and the replacement of the phrase "ones of said inlet ports and outlet ports receiving frames of variable sizes determined by said control store" with "ones of said inlet ports and outlet ports receiving frames of variable sizes based on the number of said selected channels as determined by said control store." This slight difference in language does not affect the Court's finding on the issue of anticipation.



of the read/write process from which the Court can determine whether Mr. Collins and Dr. Petersen intended for the ports to receive and transmit data randomly, sequentially, or a combination thereof.<sup>3</sup> Plaintiffs direct the Court's attention to a paragraph in chapter 3 to show that the technology was available at the time *Innovation* was published that allowed for the inlet and outlet ports in the described TST switch to randomly receive and transmit channels:

Only device technology available today was considered for use in the designs studied. Semiconductor random access memories of the required size and speed are being produced for the computer industry[]. High-speed switching arrays and the complex control circuits required are likewise available in large-scale integrated circuit form[]. Equally important is the availability of the essential software to formulate and synthesize the design and production of these devices.

(Appx. to Pls.' Mem. at A77) The Court finds this paragraph ambiguous and is unsure which of two interpretations was intended by the authors. Either the paragraph is meant to read that random access memories were available for use in TST switches at the time of *Innovation*'s publication and the authors intended the described switch to include these devices or the paragraph is meant to read that random access memories were not considered when writing *Innovation* because although they had been used in another industry, adaptations needed to be made before they could be used in the telecommunications industry and the described TST switch. Because there remain genuine issues of material fact as to whether *Innovation* teaches inlet line terminating units reducing the frame size of transmission media and whether the functions of random reading and writing of data were inherently present in the prior art reference, *Innovation*, the Court DENIES Plaintiffs' motion as to

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<sup>3</sup>Although Mr. Collins and Dr. Petersen discuss the generalized TST switch as having data sequentially read into the input memories and sequentially removed from the output memories (Appx. to Resp. at A144), they do not make any similar statements with regard to their design studies described in chapter 3, which are the prior art TST switches at issue for this motion.

anticipation.

### **C. Obviousness of the ‘589 Patent**

If an alleged infringer must combine two or more prior art references to challenge the validity of the claims of the patent-in-suit, the correct inquiry is obviousness rather than anticipation. An invention is obvious if the differences between it and the prior art “are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103. To determine whether prior art rendered a patented invention obvious, a court must first examine “the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of skill in the art.” *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998). The court must also take into account various secondary considerations that serve as evidence of nonobviousness, such as long felt but unresolved need, failure of others, and copying. *Id.* Plaintiffs argue that even if *Innovation* did not inherently teach the random read/random write limitation of the ‘589 patent, that such a limitation would have been obvious to one skilled in the art due to the 1982 publication of *Digital Telephony*, a textbook authored by John Bellamy. (Pls.’ Mem. at 23) At this juncture, the Court cannot determine whether the ‘589 patent is invalid for obviousness because genuine issues of material fact exist as to whether *Innovation* discloses all claim limitations other than the aforementioned random read/random write limitation. Therefore, the Court DENIES Plaintiffs’ motion as to obviousness.

### **D. Improper Reexamination Amendment**

Finally, Plaintiffs’ contend that claims 4-14 of the ‘589 patent are invalid because Collins amended the ‘589 patent for an improper purpose. (Pls.’ Mem. at 27-28) Under 35 U.S.C. § 305, a patent owner may propose an amendment to its patent to distinguish the claimed invention from

the prior art or to respond to an adverse decision as to the patentability of one of the patent's claims.

The Federal Circuit elucidates the requirement of a proper purpose for amendment:

[T]he ability of a patentee to amend claims during reexamination must be seen in light of the fundamental purpose of reexamination—the determination of validity in light of a substantial new question of patentability. Thus, amendment of claims during reexamination is limited to amendment in light of prior art raising a substantial new question of patentability.

*In re Freeman*, 30 F.3d 1459, 1468 (Fed. Cir. 1994). Plaintiffs assert that claims 4-14 are invalid because they were not added to the '589 patent for one of the purposes permitted by 35 U.S.C. § 305, but rather to circumvent the district court's claim construction in a prior infringement case brought by Collins against Northern Telecom Ltd. ("Nortel").<sup>4</sup> (Pls.' Mem. at 27-28) Collins does not respond to this argument directly. Instead, Collins maintains that claims 4-14 are valid because it pursued reexamination for a proper purpose and because claims 4-14 do not broaden the scope of the patent. (Collins's Resp. at 17-19)

Collins's "Request for Reexamination" shows that it initiated reexamination of the '589 patent for the proper purpose of allowing the PTO to "fully consider the substantial new questions of patentability which Nortel alleges to have been raised by the prior art." (Appx. to Collins's Resp. at A27) However, Collins's own "Patent Owner's Statement Under 37 C.F.R. § 1.530(b)" reveals that Collins added claims 4-14 "to preclude any interpretation of the claims in accordance with the district court's opinions . . . in the litigation with Nortel." (Appx. to Pls.' Mem. at A145) Collins has presented no evidence to contradict its stated purpose for amending the '589 patent. Because

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<sup>4</sup>In *Arthur A. Collins, Inc. v. Northern Telecom Ltd.*, the United States District Court for the Eastern District of Virginia granted summary judgment of non-infringement for Nortel, and the judgment was affirmed by the Federal Circuit. 216 F.3d 1042 (Fed. Cir. 2000). According to Collins, the courts did not address the validity of the '589 patent. (Resp. at 17-18)

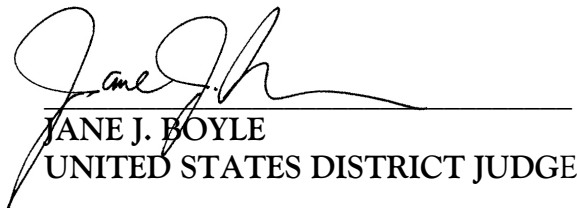
preclusion of the application of a prior claim construction is not a proper purpose for amendment under 35 U.S.C. § 305, claims 4-14 of the '589 patent are invalid and summary judgment is granted in favor of Plaintiffs on this issue.

#### IV. CONCLUSION

For the foregoing reasons, Plaintiffs' Joint Motion for Partial Summary Judgment of Invalidity is GRANTED as to invalidity for improper reexamination amendment and DENIED on all other grounds. The issues that remain for trial are whether claims 1-3 of the '589 patent are invalid for anticipation or for obviousness.

SO ORDERED.

SIGNED November 2<sup>nd</sup>, 2006

  
JANE J. BOYLE  
UNITED STATES DISTRICT JUDGE